

## ABSTRACT OF THE DISCLOSURE

An magnetic-field-generating apparatus comprising permanent magnet segments arranged to form a ring-shaped magnetic circuit having a center hole; adjacent permanent magnet segments having such different magnetization directions that their magnetization directions successively change along a circumferential direction of the magnetic circuit; a basic magnetization phase angle  $\theta$  between the magnetization directions of the adjacent permanent magnet segments being  $720/N$  ( $^{\circ}$ ); and a magnetization direction of at least one permanent magnet segment in an essential unit obtained by circumferentially dividing the ring to  $1/4$  being deviated from the basic magnetization phase angle  $\theta$  by such a deviating angle that a uniform magnetic flux flows in one direction along a diameter of the center hole.